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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/637,495	08/11/2000	Gregory J. Hewlett	TI-28454	7603

7590 03/14/2005
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EXAMINER

LIU, MING HUN

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/637,495

Applicant(s)

HEWLETT ET AL.

Examiner

Ming-Hun Liu

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 1 objected to because of the following informalities: In the last sentence of claim 1, there is a dangling modifier. In order to clarify the claim it would be beneficial to complete the phrase “displayed during”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-9 are rejected under 35 U.S.C. 102(a) as being unpatentable by US Patent 5,986,640 to Baldwin et al.

In reference to claim 1, Baldwin teaches a method of receiving an image word for an image pixel (column 4, lines 1-4) and the image data word comprises of at least a first and second image data bit (figures 4,5 and 6). Baldwin divides an image frame period into at least two refresh periods (figure 6 shows the division of sub-frames and column 7, starting from line 19 describes the figures; furthermore the “reset” described in figure 7 and column 8, line 12 corresponds to the refresh requirement of the claimed invention). As shown in figures 6a – 6e, Baldwin teaches displaying the first image data bit during some, but not all, of the refresh period and displaying the second image data bit during more of the refresh period than the first image data bit was displayed.

In reference to claim 2, in addition to the rejection offered in the discussion of claim 1, Baldwin also teaches that these the display periods are allocated to prevent flicker of the image data bit display by the method described in rejection of claim 1 (column 7, lines 19-25 and lines 34-47).

In reference to claim 3, Baldwin teaches a controlling circuit (item 119) that receives the video signal and determines the amount of time the light should be modulated on the mirror devices (column 4, lines 1-15).

In reference to claims 4-9, Baldwin teaches in figure 6e a method of dividing an image frame period into at least three refresh periods wherein a first image data bit is displayed during at least one refresh period (items 1 or 2), a second image data bit is displayed during at least two refresh periods (items 4a and 4b), and a third said image data hit is displayed during at least three refresh periods (16a, 16b and 16c) and where first second and third image data bits are displayed during different numbers of refresh periods.

Response to Arguments

4. Applicant's arguments filed 8/4/2004 have been fully considered but they are not persuasive. The applicant reiterates the examiner's rejection however does not elaborate as to why the examiner's rejection was faulty. At the very least, the applicant should clearly define the refresh limitation and how it differs from the cited reference as it appears from the arguments that the applicant wishes to patentably differentiate the uniqueness of his refresh period. The definition of a refresh period is unclear and as it stands now, the examiner believes that the reset

periods, as described by Baldwin in column 8, lines 12-15 and shown in figures 7 and 10-13, adequately anticipates the frame refresh requirement.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ming-Hun Liu whose telephone number is (571)272-7770. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ming Liu


SUMATI LEFKOWITZ
PRIMARY EXAMINER